*Wednesday, March 30, 2011  11:32:14 AM*

| Item ID: | D3457-1 | | Accept | | Setup | Start | |
|---|---|---|---|---|---|---|---|
| Revision ID: | | | | | | | |
| Item Name: | Washer | | | | | Stop | |

| Start Date: | 3/30/2011 | Start Qty: | 40.00 | | Cust Item ID: | |
|---|---|---|---|---|---|---|
| Required Date: | 4/4/2011 | Req'd Qty: | 40.00 | | Customer: | |

Reference:

| Approvals: | Process Plan: | Date: /-03-30 Tooling: | Date: | Run | Start |
|---|---|---|---|---|---|
| | QC: | Date: SPC (Y/N): | Date: | | Stop |

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|

| Draw Nbr | Revision Nbr |
|---|---|
| D3457 | Rev A |

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Accept Qty |
|---|---|---|---|
| 100 Doosan Doosan Lathe | DOOSAN LATHE Memo Turn as per Folio FA589 Rev: AA & Dwg D3457 Rev: A | 0.00 0.00 | ml 11·4·5  40 |
| 110 QC Quality Control | QC2- Inspect parts off machine FAI/FAIB Memo | 0.00 0.00 | ml 11·4·5  40 |
| 120 QC Quality Control | QC8- Inspect parts - second check Memo | 0.00 0.00 | 11/4/5  40 |

**Dart Aerospace Ltd**

| W/O: | | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes  No  DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Corrective Action Section B | | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | | |
| | | | | | | | | |
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**NOTE:** Date & initial all entries

| Item ID: | D3457-1 | | Accept | | Setup | Start | |
|---|---|---|---|---|---|---|---|
| Revision ID: | | | | | | Stop | |
| Item Name: | Washer | | | | | | |

| Start Date: | 3/30/2011 | Start Qty: 40.00 | | Cust Item ID: | |
|---|---|---|---|---|---|
| Required Date: | 4/4/2011 | Req'd Qty: 40.00 | | Customer: | |
| Reference: | | | | | |

| Run | Start | |
|---|---|---|
| | Stop | |

Approvals:   Process Plan: _____   Date: _____   Tooling: _____   Date: _____

QC: _____   Date: _____   SPC (Y/N): _____   Date: _____

| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|---|---|---|---|---|---|---|---|---|---|
| 130 Packaging Packaging | Identify as per dwg & Stock  Location: QTY Memo | 0.00 0.00 | | | | | | | |
| 140 QC Quality Control | QC21- Final Inspection - Work Order Release Memo | 0.00 0.00 | | | | | | | |

**Dart Aerospace Ltd**

## WORK ORDER CHANGES

| W/O: | | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No   DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

## WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | | Corrective Action     Section B | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

# Picklist Print

*Wednesday, March 30, 2011 11:32:20 AM*

**Work Order ID:** 67779

**Parent Item:** D3457-1

**Parent Item Name:** Washer

**Start Date:** 3/30/2011  **Required Date:** 4/4/2011

**Start Qty:** 40.00  **Required Qty:** 40.00

**Comments:**  IPP   A□05.10.03□New issue□KJ/JLM□
IPP Rev:B   Now on Doosan Lathe  08-10-30   JLM   Verified By:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MDELRINR1.000 | | Purchased | No | | | 100 | f | 12.3340 | 0.0208 | 0.875789 | | | |
| Delrin Round Bar 1" | | | | | | | | | | | | | |

| Location | Loc Qty | Loc Code |
|---|---|---|
| MAT055 | 12.334 | |
| 116266 | 12.334 | |

**Dart Aerospace Ltd**

## WORK ORDER CHANGES

| W/O: | | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes  No   DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

## WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | | | | | | |
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**NOTE:** Date & initial all entries

| DART AEROSPACE LTD | | | Work Order: | 67779 | |
|---|---|---|---|---|---|
| Description: Washer | | | Part Number: | D3457-1 | |
| Inspection Dwg: D3457　　Rev: A | | | | Page 1 of 1 | |

## FIRST ARTICLE INSPECTION CHECKLIST

[X] **First Article**　　[ ] **Prototype**

| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
|---|---|---|---|---|---|---|
| R1.575 | +/-0.010 | 1.575 | ✓ | | RD.02 | |
| 0.030 x 0.030 | +/-0.010 | .030 x .030 | ✓ | | | |
| 0.530 | +/-0.010 | .530 | ✓ | | | |
| 0.063 | +/-0.010 | .062 | ✓ | | | |
| 0.169 | +/-0.010 | .166 | ✓ | | | |
| Ø0.655 | +/-0.010 | .658 | ✓ | | | |
| Ø1.000 | +/-0.010 | 1.001 | ✓ | | | |
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| Measured by: | Audited by: | Prototype Approval: | N/A |
|---|---|---|---|
| Date: 11-4-5 | Date: 11-4-5 | Date: | N/A |

| Rev | Date | Change | | Revised by | Approved |
|---|---|---|---|---|---|
| A | 08.11.28 | New Issue | | KJ/EC | |

**Dart Aerospace Ltd**

| W/O: | | WORK ORDER CHANGES | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **PROCEDURE CHANGE** | | **By** | **Date** | **Qty** | **Approval** Chief Eng / Prod Mgr | **Approval** QC Inspector |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes  No  DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **DATE** | **STEP** | **Description of NC** Section A | **Corrective Action**  Section B | | | **Verification** Section C | **Approval** Chief Eng | **Approval** QC Inspector |
| | | | **Initial** Chief Eng | **Action Description** Chief Eng | **Sign & Date** | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**NOTE:** Date & initial all entries

**DART**

| DESIGN | DRAWN BY | **DART AEROSPACE USA, INC.** | |
|---|---|---|---|
| CP | CP | PORT HADLOCK, WA | |
| CHECKED | APPROVED | DRAWING NO. | REV. A |
| | | D3457 | SHEET 1 OF 1 |
| DATE | | TITLE | SCALE |
| 05.09.06 | | WASHER | 2:1 |
| A | 05.09.06 | NEW ISSUE | |

RELEASED
05.09.06

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 47779

**ISOMETRIC DETAIL**

ø1.000
ø0.655

R1.575
(TYP)
R0.015 (TYP)

0.030x0.030
CHAMFER

0.530

0.530
(REF)

0.063
0.169
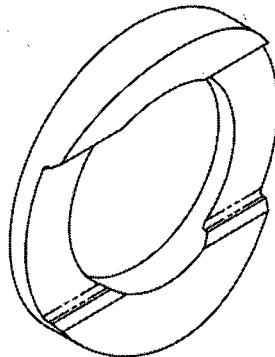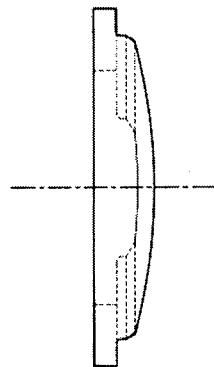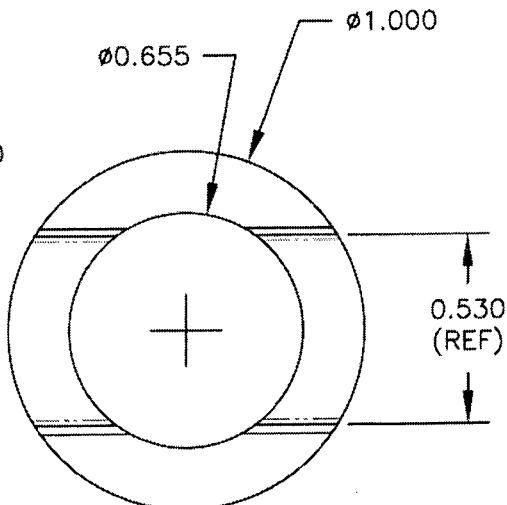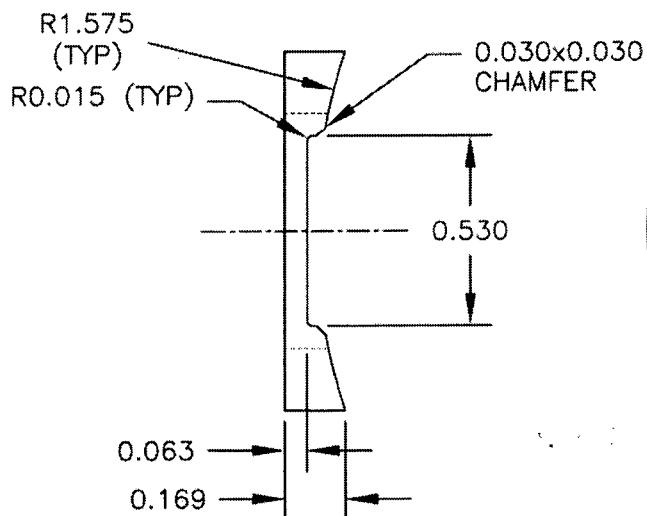
### D3457-1 WASHER

1) MATERIAL: DELRIN (DART SPEC. M-DELRIN-R)
2) FINISH: NONE
3) BREAK ALL SHARP EDGES 0.005 TO 0.010
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
5) ALL DIMENSIONS ARE IN INCHES

**Dart Aerospace Ltd**

## WORK ORDER CHANGES

| W/O: | | | | | | | |
|---|---|---|---|---|---|---|---|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
| | | | | | | | |
| | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes  No   DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

## WORK ORDER NON-CONFORMANCE (NCR)

| NCR: | | | Corrective Action | Section B | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DATE | STEP | Description of NC<br>Section A | Initial<br>Chief Eng | Action Description<br>Chief Eng | Sign &<br>Date | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
| | | | | | | | | |
| | | | | | | | | |
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**NOTE:** Date & initial all entries

H:\fFORMS\Quality Assurance\approved QA\NCRWO RevE